

IN THE SPECIFICATION:

**Please amend the following paragraph starting on page 8, line 3 as indicated below:**

In its third aspect, the present invention provides a diamond coated tool, wherein the aforesaid elongated fine diamond grains have an aspect ratio ranging from about 2 to 20. For the aspect ratio, namely a ratio of major axis diameter vs. minor axis diameter of a fine diamond grain, it is more preferable to limit the same to the range of about ~~[[10 to 2]]~~ 2 to 10. If the aspect ratio is too large, the fine grains will exhibit a lower hardness with resultant susceptibility to wear.

**Please amend the following paragraph starting on page 12, line 17 as indicated below:**

According to eleventh aspect, the present invention provides a diamond coated tool, wherein the substrate having its Co content partially substituted with Cr has a magnitude of saturation magnetization not smaller than  $1,900 \times (\text{binding phase content of alloy (by mass \%))/100$   ~~$[(\text{G-cm}^3/\text{g}) \times 0.93]]$~~   $\times 0.93 (\text{G-cm}^3/\text{g})$  but not greater than  $2,023 \times (\text{binding phase content of alloy (by mass \%))/100 (\text{G-cm}^3/\text{g})$ . If the binding phase of the cemented carbide contains Cr, its magnitude of saturation magnetization decreases about 7%.

**Please amend the following paragraph starting on page 46, line 3 as indicated below:**

The respective tap specimens having there surfaces left unpolished were subjected to test, in which holes formed in MMC (Al-30 mass % SiC) were worked using these taps, with worked

holes totaling to 700 per tap in number. For evaluation, the adhesion thickness, cutting force and the number of peeled diamond coatings were observed. For evaluation of the adhesion thickness, measurement was made at one site on the rake face of the thread portion lead. For cutting force evaluation, were measured and averaged the cutting forces encountered in the direction of Y-axis (rotative direction) when processing the first through fifth holes. In Table [[6]] 7, the peeling is given in number of peelings in each tap used through the above-described tapping test.

**Please amend the following paragraph starting on page 48, line 12 through as indicated below:**

Then, a ultrafine particle diamond was applied to the tip. For this, 0.002 g of a polycrystalline diamond powder of 4-6nm in grain size was dissolved and dispersed in 100 cc of isopropyl alcohol. The tip was immersed in the resultant solution and the polycrystalline diamond was applied to the tip therein under irradiation of ultrasonic wave for 10 minutes. Thereafter, the tip was coated with diamond in an atmosphere having a 2 vol. % methane concentration at a filament temperature of 2,050 °C and substrate temperature of 850 °C under pressure shown in Table 8, where the interval between the tip and the filament was set at 5mm. As for the thickness of diamond coating, the specimens 30-36 and the specimen 37 had coatings [[2]] 10 micrometers thick and [[10]] 2 micrometers thick, respectively. The tips were fabricated through those processes indicated by circle symbols in Table 8, and processes without circle symbols were skipped. However, for the specimens 31-36 and for the specimen 37, the coating operation was suspended when the coating thickness was expected to reach 9 micrometers and 1.5 micrometers, respectively, to measure their actual thicknesses and thereafter the coating operation was restarted for covering the remaining thicknesses. Traces of interrupted growth

were observed remaining as boundaries in cross-section of the diamond coating. The specimens were measured also for average surface roughness Ra. The result of this measurement is shown in Table 8, as well. Further, the specimen 34 was subjected to an X-ray diffractometry analysis, and hardness and average surface roughness tests. This specimen had a peak intensity  $I_{220}/I_t$  of 0.8 in X-ray diffractometry, where  $I_{220}$  is a peak intensity of the diamond crystal face (220) and  $I_t$  is a total of peak intensities of diamond crystal faces (111), (220), (311), (400) and (331). Also, it had a hardness of 7,500 kgf/mm<sup>2</sup>. As an example of the preferred embodiment of the present invention, the cross-section of the specimen 34 is shown in the microphotographs of Figs. 7 (a) and (b).